

In the Claims:

1. (Currently Amended) A method for protecting a redistribution layer on a wafer, wherein the wafer provided with the redistribution layer is covered on its entire surface with an organic protective layer, which protects the redistribution layer from corrosion and oxidation in that it produces a dense covering of the metal surface of the redistribution layer through chemical bonding, wherein the wafer is etched prior to the coating with the organic protective layer.
2. (Original) The method as claimed in claim 1 wherein the redistribution layer comprises a seed layer, a layer of copper situated on said seed layer, a nickel layer arranged thereon, and a gold layer covering the latter.
3. (Original) The method as claimed in claim 1, wherein BTA (benzotriazole) is used as the organic protective layer.
4. (Original) The method as claimed in claim 1, wherein Gliccoat® is used as the organic protective layer.
5. (Original) The method as claimed in claim 1, wherein Preventol® is used as the organic protective layer.
6. (Original) The method as claimed in claim 1, wherein the organic protective layer is applied by spraying.
7. (Original) The method as claimed in claim 1, wherein the organic protective layer is applied by dipping the wafer into a liquid reservoir.

8. (Original) The method as claimed in claim 7, wherein the temperature of the liquid reservoir is at about 30° C.

9. (Canceled).

10. (Original) The method as claimed in claim 1, wherein the coating of the wafer is repeated after the wafer has been mounted on a carrier.

11. (Currently Amended) A method for manufacturing a semiconductor device, the method comprising:

providing a semiconductor device that includes a conductive area at an upper surface;

forming a redistribution layer on the semiconductor device, the redistribution layer

electrically coupling the conductive area to a connection region;

coating the redistribution layer with an organic protective layer, wherein the semiconductor device is etched prior to the coating with the organic protective layer.

12. (Original) The method of claim 11 wherein the organic protective layer protects the redistribution layer from corrosion and oxidation in that it produces a dense covering of the metal surface of the redistribution layer through chemical bonding.

13. (Original) The method of claim 11 wherein the organic protective layer coats sidewalls of the redistribution layer.

14. (Original) The method of claim 11 wherein forming a redistribution layer comprises:

forming a seed layer over the upper surface of the semiconductor device;

patterning the seed layer in a redistribution layer pattern; and
forming a copper layer over the seed layer.

15. (Original) The method of claim 14 and further comprising forming a nickel layer over the copper layer and forming a gold layer over the nickel layer.

16. (Original) The method of claim 11 wherein coating the redistribution layer comprises applying the organic protective layer by spraying.

17. (Original) The method of claim 11 wherein coating the redistribution layer comprises dipping the wafer into a liquid reservoir.

18. (Original) The method of claim 11 wherein the semiconductor device is etched immediately prior to the coating with the organic protective layer.

19. (Currently Amended) A The method of claim 11 for manufacturing a semiconductor device, the method comprising:

providing a semiconductor device that includes a conductive area at an upper surface;

forming a redistribution layer on the semiconductor device, the redistribution layer

electrically coupling the conductive area to a connection region;

coating the redistribution layer with an organic protective layer;

mounting the semiconductor device on a carrier; and

wherein repeating the coating of the semiconductor device wafer is renewed after the semiconductor device latter has been mounted on a the carrier.

20-26. (Canceled)

27. (New) A method for manufacturing a semiconductor device, the method comprising:
providing a semiconductor device that includes a conductive area at an upper surface;
forming a redistribution layer on the semiconductor device, the redistribution layer
electrically coupling the conductive area to a connection region;
coating the redistribution layer and the connection region with an organic protective layer;
and
performing a soldering operation at the connection area, wherein the soldering operation
removes the organic protective layer from the connection area so that solder material adheres on
the connection region.

28. (New) The method of claim 27, further comprising performing a second coating operation
after performing the soldering operation.

29. (New) The method of claim 27, wherein the soldering operation causes portions of the
organic protective layer to vaporize thereby removing the organic protective layer from the
connection area.

30. (New) The method of claim 27, wherein the redistribution layer comprises a seed layer, a
layer of copper situated on said seed layer, a nickel layer arranged thereon, and a gold layer
covering the latter.

31. (New) The method of claim 27, wherein coating the redistribution layer comprises coating
the redistribution with BTA (benzotriazole).

32. (New) The method of claim 27, wherein the organic protective layer is applied by spraying.

33. (New) The method of claim 27, wherein the organic protective layer is applied by dipping the wafer into a liquid reservoir.

34. (New) The method of claim 27, wherein the redistribution layer is etched immediately prior to coating the redistribution layer.